

ABSTRACT OF THE DISCLOSURE

Means for obtaining accurate knowledge of location and amount of fouling inside a heat exchange system, such as a boiler of a power plant, are provided. According to the invention this knowledge can be used to optimize cleaning of a heat exchange system. The system of the invention comprises: Means for measuring particles in the exhaust gas stream of the heat exchange system. These particles are at least partly released when cleaning a certain part of the heat exchange surface of the heat exchange system. Means for creating information of the fouling in an electronic memory by linking together coordinates of the part of the heat exchange surface being cleaned and the measurement data created during the cleaning of said part.